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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,450	02/05/2004	Hirokazu Atsumori	NITT.0184	3836

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EXAMINER

CARLOS, ALVIN LEABRES

ART UNIT	PAPER NUMBER
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3715

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12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/771,450	Applicant(s) ATSUMORI ET AL.	
	Examiner ALVIN L. CARLOS	Art Unit 3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a Final Office action in response to communications received August 29, 2008. Claims 1, 3, 10 and 13-14 have been amended. Claim 2 is cancelled and new claims 15-16 are added. Claims 1, 3-16 are now pending.

Response to Amendment

2. Applicant's amendments to the claims 1, 3, 10 and 13-14 are sufficient to overcome the rejection under 35 U.S.C. 103(a) as being unpatentable over Collura 5899867 in view of DeCharms 20020103429, set forth in the previous office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeCharms 20020103429.

Re claim 1, DeCharms discloses a training assistant system comprising:
a training task presentation unit for presenting a search task for searching a region of interest of a brain a plurality of times to a trainee having damage in the brain thereby presenting a training task thereafter (paragraphs 00327-0329), a trainee's response collection unit for collecting a response in accordance with the search task from the

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trainee (paragraphs 0081 and 0181), a brain activity measurement unit for measuring brain activity at a plurality of brain regions of the trainee (see figure 1, paragraph 0015 lines 3-6), an information processor including means for selecting the region of interest among the plurality of brain regions by comparing a response from the trainee's response collection unit with measurement results from the brain activity measurement unit (paragraphs 0016-0017), the region of interest being a compensatory region in the brain which functions in place of a damaged location in the brain and is activated in response to the search task by obtaining a correlation between the response and measurement result (paragraphs 0325 and 0485), means for controlling presentation by said training task presentation unit and means for determining said training task to be performed which is previously associated with the selected region of interest (see figure 1, paragraphs 0044-0045).

DeCharms discloses all of the claimed subject matter with the exception of disclosing the feature of a compensatory region.

However, since DeCharms discloses Comparison regions of interest are other defined regions that may be compared with the primary region of interest (paragraph 0325).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify DeCharms's invention and substitute any region of interest in order provide a systems for monitoring physiological activity, particularly in the human brain that associate a given condition with a particular brain region and communicating the selected behavior or stimulus to the subject for guiding brain activity

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training so treatment of the conditions can be achieved as taught by DeCharms (paragraphs 0028 and 0625).

Re claim 3, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses information processor controls said training task presentation unit such that said search for searching the region of interest (paragraphs 0327 and 0328).

Re claim 4, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses information processor sets evaluation criteria for the response of training the trainee and evaluates the response of training the trainee based on the evaluation criteria (paragraphs 0056-0059).

Re claim 5, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses evaluation criteria including a response time and a correct answer rate (paragraphs 0149, 0157 and 0654).

Re claim 6, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses information processor sets evaluation criteria for the measurement results from the brain activity measurement unit and evaluates said measurement results of training the trainee based on the evaluation criteria (paragraphs 0266, 0268 and 0384).

Re claim 7, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses evaluation criteria including a change percentage in a peak value of the brain activity (paragraphs 0407 and 0483).

Re claim 8, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses information processor sets evaluation criteria for the response

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from the trainee's response collection unit and the measurement results from the brain activity measurement unit and evaluates said response and second measurement results based on the evaluation criteria (paragraphs 0058-0060).

Re claim 9, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses evaluation criteria include a response time, a correct answer rate and a change percentage in a peak value of the brain activity (paragraphs 0345-0347).

Re claim 10, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses means for selecting compares a first timing of the response from the trainee's response collection unit and a plurality of second timings of the measurement results from the brain activity measurement unit brain activity and selects the region of interest by judging synchronism between the first timing and the second timings (paragraphs 0273-0274 and 0351-0352).

Re claim 11, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses synchronism between the first timing and the second timings is judged by using a correlation coefficient or a calculation method (paragraphs 0471 and 0485).

Re claim 12, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses training task is presented via at least images or sounds (paragraph 0096 lines 1-11).

Re claim 13, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses the training task presentation unit presents a new training task to the trainee and a response to said new training task from the trainee's response

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collection unit is compared with measurement results of said new training task from the brain activity measurement unit to evaluate a result of training so as to decide another new training task to be performed (paragraphs 0057, 0062 and 0066).

Re claim 14, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses means for searching locates the region of interest without using information of a damage location in the brain (paragraphs 0070-0071).

Re claim 15, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses the training task presentation unit presents a plurality of search tasks (paragraph 0140).

Re claim 16, DeCharms discloses the invention as discussed above. In addition, DeCharms discloses the brain activity measurement unit measures brain activity at the plurality of brain regions of the trainee prior to as well as after a time point when the search task is presented (paragraphs 0270, 0388, 0390 and 0425).

Response to Arguments

5. Applicant's arguments with respect to claims 1, 3-16 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant argues that Collura and DeCharms do not disclose the newly added features such as, the region of interest being a compensatory region in the brain which functions in place of a damaged location in the brain and is activated in response to the search task. The Examiner interpreted the region of interest being a compensatory region in the brain as another region of interest compared to the primary or target region

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of interest. The Examiner rejected the claims under 35 U.S.C. 103(a) as being unpatentable over DeCharms as discussed above. In addition, DeCharms discloses a primary region of interest as the area that is being trained and a comparison regions of interest that define the regions that may be compared with the primary region of interest (paragraph 0325 lines 21-27). Therefore, the Examiner concludes that DeCharms discloses the claimed limitations.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN L. CARLOS whose telephone number is

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(571)270-3077. The examiner can normally be reached on 7:30am-5:00pm EST Mon-Fri (alternate Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571)272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alvin L Carlos/
Examiner, Art Unit 3715
December 10, 2008

/Cameron Saadat/
Primary Examiner, Art Unit 3715